Product Specifications

16-CH Network Video Recorder with HDMI

NVR-1620

Version 1.0

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Change History:

Revision	Date	Author	Change List
Version 1.0	2014/01/08	Ray	Initial release

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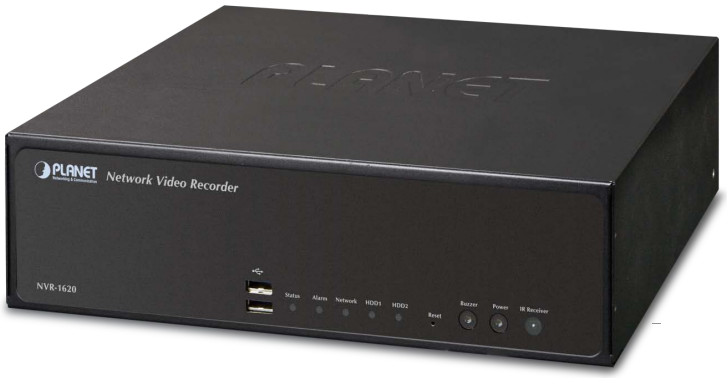
1. PRODUCT DESCRIPTION



Efficient SMB Surveillance Solution

This NVR is suitable for introducing high-definition IP surveillance solution, and for upgrading your CCTV system to IP system without re-cabling. The NVR-1620 is the 16-channel Linux embedded NVR with HDMI local display from PLANET, bringing stable and efficient system operation under a wide range of recording/network management/system settings. This latest NVR could be used as a control center to control and monitor up to 16 network cameras (ONVIF supported) connected to this NVR locally or remotely, and also supports image storage for evidentiary recording and data backup up to 2 hard disks, perfectly designed for intelligent IP surveillance system. Users can just turn on the cameras and the NVR to easily protect their life and properties under the IP networks. The recorded video files can be saved in the NVR without the need for an additional PC for files storage, thus bringing users a secure surveillance system at a lower total cost. It is fully compatible with iOS, Android and Internet Explorer on Windows operating system for multi-platform remote access.

High Resolution Local Display

The NVR-1620 provide an HDMI and VGA video output interface for dual local display, which can be connected to HDMI monitor or TV for doing monitoring in the full HD (1920 x 1080) resolution, and check NVR system status on VGA monitor at the same time, eliminating the need for a separate PC to view video from the unit. It also can be operated with the USB keyboard / mouse and bundled remote control* to configure and monitor all the system easily.

Performing Real-time Remote Monitoring

Up to 16 IP cameras can be connected to the NVR-1620 via a connected IP network. With the NVR-1620, it delivers high performance to ensure stable recordings and smooth playbacks of multiple megapixel cameras, Users can view remote surveillance in real time and play back recorded videos via the web browser or the bundled CMS software.

Easy Configuration and Management

The NVR-1620 feature smart setup wizard program to help users easily complete the device installation. It supports web-based management interface for the administrators to remotely manage the device via web browser without any concern. Furthermore, the NVR-1620 can automatically search and find the available cameras in the network so it greatly reduces user's effort when setting up the system. This state-of-the-art and powerful software / hardware in one design is considerable to fit in various network environments.

* The full version of CMS software can be purchased additionally to manage up to 1,024 channels by working with the NVR-1620.

2. PRODUCT FEATURES

Hardware

- Linux-embedded, highly reliable standalone NVR
- Supports Gigabit Ethernet port
- Supports VGA / HDMI dual local display
- Supports 3.5" SATA x 2 HDD

Video / Audio

- Supports M-JPEG / MPEG-4 / H.264 compressions
- Auto configuration for PLANET IP camera
- Video resolution up to 5 mega-pixel (2560 x 1920)
- Support up to 120fps @ 1080P (H.264)
- 2-way audio support with enhanced audio quality

Video Recording / Backup

- Simultaneous recording and live video streams
- Manual or schedule recording of 16 IP cameras
- Video recycle function makes the video recording in 24/7
- Exports record video file to AVI format to USB device or local storage
- Instant Event Notification and recording

Network Service

- Easy access with PLANET Dynamic DNS and Built-in NTP Server
- Support DHCP Server/client (Auto detection)

Easy Installation & Management

- ONVIF compliant for interoperability
- Supports Multiple Languages
- Auto discovered by management software
- E-Map interface in web and utility configuration
- Web-based and management utility for easy configuration
- Up to 16 NVR, max. 256 channels with the central management software
- Support USB keyboard, mouse, and joystick, IR remote control and Joystick (PTZ)*
- Supports mobile phone remote view with WinCE 6.1, Android, Symbian S60, iPhone, Blackberry 4.6

*The remote control and joystick is optional

3. PRODUCT SPECIFICATIONS

3.1 Main Component

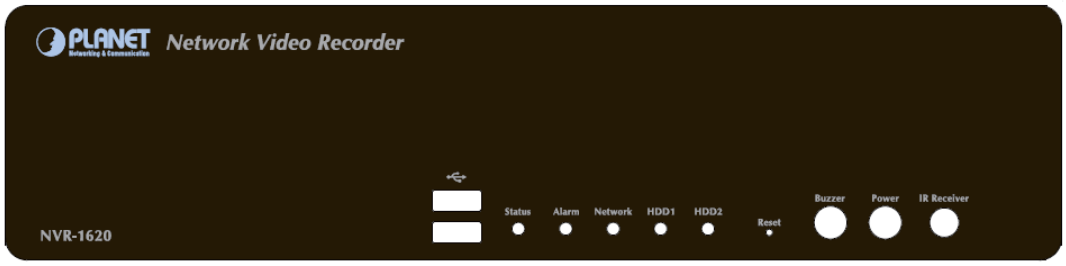
CPU	TI DM8168
RAM	2GB

3.2 Functional Specifications

Product	NVR-1620
Hardware	
Ethernet	1 x RJ-45, 10/100/1000Base-T
USB Interface	1 x USB 2.0 for backup device and firmware upgrade
Video Interface	VGA / HDMI video interface
Audio Interface	Mic-in, line-in and line-out
Storage Device	2 x 3.5” SATA II hard disk connectors
LED	Power, Alarm, Status, HDD
Button	Power, Reset, Buzzer stop
IR Receiver	Built-in IR receiver
Camera	
Max. Channels	16 channels IP cameras
Add camera	Manual / Smart Camera Search / Auto setup
Video	
Compression	H.264 / MPEG-4 / M-JPEG
Resolution	5MP / 3MP / 1080P / 2MP / SXGA / 720P / FD1 / VGA / CIF / QCIF
Max. live video frame rate (Local UI)	480fps@D1 30 360fps@720P30 120fps@1080P30 Max. 5MP/channel *1: Supports Full HD1080P60 *2: NVR-1620 local display limit to 2 channel 1600 x 1200 (2MP) resolution IP camera
Max. recording frame rate (Local UI)	480fps@1080P, 3Mbps/channel, total 16-channel * Real performance may vary in different environment
Audio	
Audio Type	Two-way
Audio format	G.711, G.726 (Camera dependent)
Live view	
Display Mode	Live View / Playback / Full / Screen / Sequence view / Saved views
Split Screen	1 / 4 / 9 / 16
Full Screen	1 / 4 / 9 / 16
Sequence Mode	Sequence All / Manually Selected cameras in 1/4 split view with configurable timer
Snapshot	Video snapshot in JPEG format

PTZ Support	Digital PTZ / Auto Pan / Preset Point / Preset point Sequence view
Playback	
Split Screen	1 / 4
Play Method	Play / Pause / Stop / Forward / Reverse / Speed Adjust / Frame by Frame Search by time or event only
Bookmark	Intuitive timeline interface with bookmark function for easy file export
Monitor	
Dual Monitor	Main UI + Full screen live view / sequence view
Monitor Resolutions	1920 x 1080, 1280 x 1024, 1280 x 720, 1024 x 768
Network and Configuration	
Network Service	TCP / UDP / HTTP / DHCP / DNS / ARP / ICMP / NTP / UPnP / FTP
Streaming Protocols	Depending on the supported cameras
Triggers and Event	
Event type	**System Events –** ● System Start / Shutdown ● System Settings modified ● Camera Settings Modified ● Start Recycle ● Disk Full **Camera Events –** Motion/Sensor Detection
Event Action	● Display red window on video of event channel ● Buzzer alarm ● Disable / enable event action ● Duration of event action ● Recording ● Mail / FTP notification ● E-Map notification
Management	
Number of Groups	7 (Administrator / Guest / User Define * 5)
Privileges	Live View / Playback / System Configurations / Camera Configurations / Recording Configuration / Event Configuration / Maintenance
User Interface	● Graphic local user interface (Operated by mouse, keyboard, IR remote controller or USB joystick)* ● Web Browser (Internet explorer 7 or above) ● CMS Utility
Log Type	Alert / Event / User Access
Software Utility	Search utility / media player for recording export

Front Panel



LEDs	Status	Definitions
HDD x 2	Green	Solid green when the HDD is mounted
	Red	Solid red for disk fail
	Amber	Solid amber when recording is in process Blinking when recycling
Network	Green	Solid green for activity on a 10/100Mbps network
	Amber	Solid amber for activity on a 1Gbps network
Status	Green	Solid green for normal operation Blinking green when firmware upgrade is done
	Red	Blinking red for failed firmware upgrade through USB disk
	Amber	Blinking amber during firmware upgrade
Power	Green	Solid green - Normal operation Blinking in green after pressing and holding the reset button for 5 seconds indicating the device will enter the restore default process. Other LEDs remain unchanged during this state.
	Red	System off (power cord remains plugged in)
	Amber	Fast blinking - During system initializing/starting. Continuous blinking - When system is unable to start properly (All other LEDs should be off when this LED is blinking in amber) Slow blinking - The system is shutting down. Other LEDs go off according to the stages of the process.
Alarm	Red	Blinking in red when a system/camera event occurs. Blinking should last 10 seconds for each event
	None	Goes off if reaches the 10-second duration, or when buzzer stop button is pressed (if buzzer is triggered)
Buttons	Status	Definitions
Power	ON	Press and hold for 2 seconds
	OFF	Press and hold for 2 seconds
Reset	Restore default	Press and hold for 5 seconds
	Restart	Press and hold for 2 seconds
Buzzer Stop	STOP	Press and release to stop buzzer right away
Buzzer	Status	Definitions
Beep	Complete start	Beep once (indicating the system is fully started)
	Initiating restart	Beep once (Indicating the restart process has begun)
	Initiating shutdown	Beep once (Indicating users to release the Power button as the shutdown process has begun)

Rear panel

Connector	Description
Ethernet	10/100/1000Mbps network.
USB	Connect your USB flash disk for firmware upgrade and backup.
Video	VGA / HDMI
Audio	Line in / Line out / Mic
Power Supply	100~240V AC, 1.4A / Max. 50/60Hz

3.3 Physical Specifications

Dimensions (W x D x H)	303 x 212 x 82 mm
Weight	3.5 kg

3.4 Environmental Specifications

Temperature

Operating	5 ~ 40 degrees C
Storage	-40 ~ 70 degrees C

Operating Humidity

Operating	10 ~ 90% (non-condensing)
Storage	10 ~ 90% (non-condensing)

3.5 Electrical Specifications

Input Voltage	100~240V AC, 1.4A / Max. 50/60Hz

3.6 Regulatory Compliance

Power consumption	90Watt

3.7 Regulatory Compliance

FCC, CE, RoHS, WEEE

3.8 Reliability

MTBF > 50,000 hrs @ 25 degrees C

3.9 Basic Packaging

- NVR unit X1
- User's Manual CD X1
- Quick Installation Guide X1
- RJ-45 Cable X1
- Power Cord X1
- HDD Screw Packet X1
- Mouse X1

3.10 Packaging Information

Dimensions (W x D x H)	370 x 305 x 205 mm
Weight	4.1 kg
Carton Dimensions (W x D x H)	642 x 380 x 230 mm
Carton Weight	8.5 kg
Carton Unit	2 pcs in one carton

APPENDIX A: DEFAULT SETTING

Default IP Address	192.168.0.20
Default Login User Name	admin
Default Login Password	admin
Search Tools	NVR Device Search